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COMMITTEE ON EDUCATIONAL RESEARCH
The University of Alberta

Editorial Comment

As stated in earlier issues, it is the policy of the Journal to consider for publication articles fitting a broad definition of research. In this issue we include articles which represents less frequently used points in our research continuum.

Thomson, in "Pass or Fail—1845" gives us historical perspective on present unrest in our colleges and universities. His wise selection of excerpts from Tolstoy's writings gives us a glimpse of the nineteenth century student in Russia and casts light on similar problems of students and faculty today.

Dahlke looks at the problem of attempting to maintain a neutral position in the study of value systems. He discusses the question generally, and then makes specific suggestions for increasing the objectivity of research instruments. The paper, given at a seminar at the University of Alberta, retains the highly readable style of his original presentation.

Articles which serve as commentary on the work of other researchers are not usually classified as rearch in the terms of this journal. However, with increasing emphasis on research into *set* as a psychological phenomenon, it is pertinent to present our readers with a synthesis of the important terminology and issues in Soviet set theory. Stewin presents these ideas in his article.

The studies by Friesen and by Maguire and Hazlett follow the more typical patterns of research articles. Each has important ideas to present. Friesen reports a preliminary study of the attitudes of education students, teachers, and graduate students in educational administration to the term "educational administration." The significant contribution of the study is its use of the Semantic Differential to investigate these attitudes.

Maguire and Hazlett identify the inadequacies of reliability checks in much recent research. They do not, however, content themselves with pointing out these ills. They describe the dimensions of the question of reliability, and suggest approaches specific to purposes for which instruments are to be used.

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It has been the aim of the Journal to direct new information to sources of leadership in education. Each year AJER is attracting more readers from institutes of higher education in addition to maintaining its contacts with teachers, senior administrators, and members of Departments of Education. Evidence of this is found in the number of individual and library subscriptions from universities and colleges through-

out the world, in the number of requests for single issues, and in the requests for permission to reprint articles in other publications. Also, it is significant that AJER is now usually selected as one of the educational journals to be indexed by new information services (e.g., the new monthly index of periodical literature in education, *Current Index to Journals in Education,* published by Crowell, Collier and MacMillan, will catalogue and index articles from AJER).

With this issue we leave the editorship of this publication satisfied that it is fulfilling its important function of influencing decision-making in education. The task of development is speeded if recent thinking about educational questions is made available to those responsible for making decisions and directing future research.

We wish our successor well in his task of furthering the aims of the Journal. May continued high standards in content be accompanied by innovation to make the Journal even more widely accepted.

P. A. McF.

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The following is designed to provide a brief glimpse of the Russian student, his university, and its system, in about 1845. We are provided with some idea of the range of student in terms of social standing, financial means, and intellectural motivation and talent. We also see something of the position of his professors, their methods of insrtuction and their method evaluation.

KEITH H. THOMSON
The University of Alberta

Pass or Fail – 1845

It may be of some interest during these times of student unrest and revolution to look in on some students from another time and from a different land. Leo N. Tolstoy's story "Youth," first published in January 1857, was not intended to be autobiographical but we may be quite sure that in this work he reflects his own experiences. This assumption places the vignettes of the students portrayed here in the mid-1840's. Tolstoy entered Kazan University in 1844, where he registered in the Faculty of Oriental Languages with the intention of becoming a diplomat. Although he had passed the entrance examinations only after repeating the history and geography examinations he did not address himself to his studies and led a life of amusements.[1] He failed the first year examinations. He then registered in the Faculty of Law. For the first half of this year he again neglected his studies but decided to change his ways in time to pass in May. He withdrew from the University prior to the examination period in 1847.

The setting for "Youth" is Moscow rather than Kazan but the events must have been largely the same.

The above is intended simply as a forward to the following selected passages, which I hope the reader will enjoy, and which will serve as an invitation to read both "Boyhood" and "Youth" for their references to education.

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1 The range of grades given students was one to five with one being an outright failure. It would seem that instructors were as prone to qualify then as now for Tolstoy got a 5+ in French which according to his translator and biographer Aylmer Maude means "exceptional distinction."

Tolstoy commences his description.

As soon as I entered the auditorium I felt my personality disappearing in the throng of gay young people which, in the bright sunshine flowing in through the large windows, surged noisely through all the corridors and doorways.

The consciousness of being a member of that great company was very pleasant. But I knew only a very few of all these people . . . Around me there was hand-shaking, pushing-smiles and friendly words and jests showered from all sides . . . I was I remember, sad at heart that first day.

When the Professor entered everybody moved and then became silent. I remember that my satirical observation extended to him and I was struck by his beginning his lecture with an introductory sentence which, in my opinion, did not make sense. I wanted the lecture to be so clever from beginning to end that it would be impossible to omit, or add to it, a single word. Disappointed in this, under the heading 'First Lecture' written in a handsomely bound note-book I had brought with me, I immediately sketched eighteen profiles, forming a wreath-like circle, and only occasionally moved my hand across the page that the Professor (who I felt convinced was much interested in me) might think I was taking notes. Having at this lecture decided that it was unnecessary, and would even be foolish, to take down everything that each of the professors said, I kept to this rule to the end of the course . . .

We had among us a bursar student, Operov, a modest, very capable and industrious young man, who always offered his hand as if it were a board . . . I almost always took a seat beside him and often talked with him. I specially liked Operov because of the free opinions he expressed about the professors. He defined the merits and defects of each professor's lecture very clearly and precisely and even occasionally ridiculed them, which seemed to me specially strange and striking when spoken in his quiet voice and coming from his tiny mouth. Nevertheless he carefully noted down, in his minute handwriting, all the lectures without exception. We were already becoming intimate and had decided to prepare for the examinations together . . . (pp. 362-365).

The winter passed unperceived, the thaw had already set in again and the list of examinations had been nailed up in the university, when I suddenly remembered that I should be examined in eighteen subjects, on which I had attended lectures I had not listened to or taken any notes of or prepared a single one. It is strange that so simple a question as that of how I was to pass my examinations had not once occurred to me . . . I went to the lectures only because it had become a habit and because papa sent me out of the house. Besides, I had many acquaintances and often enjoyed myself at the university. I liked the noise, the voices, the laughter, in the auditorium; I liked to sit on a back bench during a lecture dreaming of something to the monotonous voice of the professor, and to observe my comrades.

When everybody had begun to attend the lectures more regularly, and the professor of physics had finished his course and taken leave till the examinations, the students began collecting their notebooks and preparing in groups for the examinations. I too thought I ought to prepare myself. Operov . . . not only offered me his note-books but invited me to prepare myself by them with him and some other students. I thanked him and accepted . . .

I was told that they would study in turn now at one house and now at another, according to its nearness. The first time we met at Zúkhin's. It was a small room behind a partition, in a large house on the Trutnoy Boulevard (pp. 391-392).

I already knew the gentle and honest Operov, and now the spirited and remarkably clever Zúkhin, who was evidently first in that circle, attracted me very much . . . He seemed not to think of himself (which always particularly pleased me in people), but it was evident that his mind was never idle.

When they had finished reading, Zúkhin, the other students, and I—to show a readiness to be their comrade—drank a glass of vodka apiece, and there was hardly any left in the bottle. Zúkhin asked if any one had a quarter-ruble, that the old woman who served him might be sent for more vodka.

'Mind and don't start drinking!' said Operov, who did not drink at all himself.

'No fear,' answered Zúkhin, sucking the marrow out of the mutton-bone . . . 'If only Semenov does not slip up—he seems to have been drinking hard.'

In fact, that same grey-haired Semenov . . . had begun going on the spree before the repetitions began, and toward the end of the course had not shown himself at the university at all . . .

'I have lost sight of him,' Zúkhin continued: 'the last time I was with him, we smashed "Lisbon"*. It was a capital affair! They say there was a row afterwards . . . What a head! What fire there was in that man! What a brain! It will be a pity if he goes to pieces. And he certainly will: he is not the sort of lad to stick it in the University, with his impulsive nature!

Zúkhin . . . borrowed a ruble from Operov [and] went off to spend the whole night somewhere.

After talking for a while longer every one began to go, having agreed to meet at Zúkhin's on the following days because his quarters were nearest to all the others . . .

For about a fortnight I went almost every evening to study at Zúkhin's . . .

The course, vicious side of Zúkhin's character was for me at that time so overpowered by the strength of the poetry of daring in him of which I had a presentiment, that it did not affect me all unpleasantly.

For about a fortnight I went almost every evening to study at Zúkhin's. I studied very little, for as I have already said I had fallen behind my comrades, and not having the strength to study by myself in order to catch them up I only pretended to listen and to understand what they read . . .

From day to day I more and more excused the disorderliness of that circle, feeling drawn to it and finding much that was poetic in it . . .

Once I wished to brag to them about my knowledge of literature, especially French literature, and I led the conversation on that subject. To my surprise, it turned out that though they pronounced the titles with a Russian accent, they had read a great deal more than I, and knew and appreciated English and even Spanish writers, and Le Sage of whom I had

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* Lisbon is mentioned again later and was evidently a restaurant of some sort. (A footnote in the text.)

not even heard. Pushkin and Zukovski were literature to them—and not as, to me, books in yellow bindings which I had read and learnt as a child. They despised Dumas, Sue, and Fevol alike, and they—especially Zúkhin—had a much clearer judgment of literature than I, as I coluld not but acknowlege. In my knowledge of music I also had no advantage over them. To my greater surprise Operov played the violin, another of the students who studied with us played the violoncello and the piano, and they both played in the university orchestra, knew music very well, and appreciated what was good. In a word, except the pronunciation of French and German, they knew better than I everything I had wished to boast about before them, and without being at all proud of it . . . I felt that [their] carousals must be something quite different from the make-believe with burnt rum and champagne in which I had taken part at Baron Z's.

I don't know to what category Zúkhin belonged; but I know that he had been in the S. High School, had no means, and did not I think belong to the gentry. He was about eighteen at the time though he looked much older. He was remarkably clever and particularly quick-witted: it was easier for him to grasp the whole of a complex subject and foresee all its parts and deductions than consciously to consider the laws from which these deductions are made . . . [W]ithout much study and without taking notes, he knew mathematics excellently and was not boasting when he said he would baffle the professor. He thought there was much nonsense in the lecutres he heard, but with the unconscious practical roquery of his nature he immediately adapted himself to what the professor required; and all the professors liked him. He was outspoken in his relations with the authorities, but the authorities respected him. He not only did not respect and did not care for learning, but even despised those who were seriously occupied with what came to him so easily. Study as he understood it, did not occupy one-tenth of his capacity . . . Now, just before the examinations . . . Zúkhin disappeared for a couple of weeks, so that lately we carried on our preparations at another student's room. But at first examination he appeared in the hall, pale, haggard, with trembling hands, and passed the examinations brilliantly to enter the second course . . .

At length the first examination, in differential and integral calculus, had arrived. I was in a strange state of fog and had no clear conception of what awaited me . . .

I sat down on a bench on the side where the princes, counts, and barons were sitting, and began to talk to them in French, and strange to say the thought never occurred to me that I should presently have to answer questions on a subject I knew nothing about . . . When I was called up together with Ikonin, I arranged the skirt of my uniform and went very calmly up to the examiner's table.

A slight shiver ran down my back only when a young professor—the same one who had examined me at my entrance examination—looked me straight in the face and I touched the note-paper on which questions were written. Ikonin, though he had drawn a question with a sway of his whole body . . . gave some sort of answer though very badly, but I did what he had done at the former examination, and even worse, for I drew a second question and gave no answer to that either. The professor looked pityingly into my face and said in a quiet but firm voice:

'You will not pass into the next class, Mr. Irtenyev. You had better not

come up for examination. We must weed out this faculty. Nor you either, Mr. Ikonin,' he added.

Ikonin . . . begged for permission to be re-examined, but the professor replied that he would not be able to do in a couple of days what he had not done in the course of a year, and that he should certainly not pass . . .

'You may go, gentlemen,' he said in the same low but firm tone . . . I don't remember how I traversed the hall past students, what I replied to their questions, how I went out into the vestibule, nor how I reached home! I was aggrieved, humiliated, and truly wretched (pp. 394-402).

Reference

Tolstoy, L. H. Youth. *Childhood, boyhood and youth.* London: Oxford University Press, 1930. Pp. 362-365.

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The author discusses the advantages and disadvantages of aspiring to a "scientific" study of values wherein the study is "value-neutral." He suggests changes that would improve instruments designed to be used in the study of value systems.

H. OTTO DAHLKE
Virginia Commonwealth University

The Study of Value Systems *

Ever since American sociology had an encounter with Max Weber, there has been a continuous screed of the value-neutrality of the discipline. This value neutrality is based on the value judgment that no science makes value judgments. If it does, it is not a science. It would probably be something like law, education, medicine, or social work. However, during the past twenty or twenty-five years, sociology has become quite articulately entangled in axiological questions, and with a certain occupational hauteur claimed that values will be studied value-neutrally, i.e., scientifically, in contrast to political science which is simply apologetics for democracy and power politics or economics which is status quo oriented in terms of a refined Malthusianism; here, value free; there, ideology. Philosophic tradition is dismissed as speculative, non-empirical, subjective, armchair thinking which leads to no testable hypotheses or empirical generalizations. The welter of value analysis in philosophy is taken to mean confusion, disagreement, and lack of relevance, in short, unscientific and of little value on the premise that that which is studied and determined scientifically has greater truth value than that which is not so studied. The nineteenth century sociologists intended to replace the philosophic phase of thought with the scientific, culminating in some sort of positivistic ethics which would supply the basis for the reconstruction of society. In the twentieth century the idea of a scientific ethics has disapepared in favour of the alleged value neutral, empirical analysis and generalizing about values nor is there any particular concern about the reconstruction of society, *qua* science that is.

The study of values and behaviour in a society without an axe to grind has its point. The difficulty is whether or not this is so. At the

* Paper presented at an interdisciplinary seminar at The University of Alberta, March 21, 1969.

minimum there must be a concern with truth value so whatever propositions are asserted are thought to be correct rather than incorrect, and yet, on the truth value of many empirical generalizations, there has been much stormy controversy. Truth value is but one of the many values that compose the scientific ethos which meshes with the scientific method. The method itself is full of controversy as to the value of or the use and misuse of techniques, e.g., on chi square and tests of significance, etc.

Indeed, much research accepts a prior valuation which remains a value enthymeme. The prior value set is the cultural or that of the sponsoring agency. Thus, the value neutral study of crime accepts the social evaluation of behaviour as criminal. Without that social definition and categorization there could not be any study of crime and criminal behaviour. As a matter of fact, wherever there is a social problem, the social recognition and evaluation precedes and is the point of departure for the scientific study. In the Camelot fiasco the participating social scientists accepted without any ethical hesitations the basic value slant for the study as set by the Defense Department. For a few the blowup was regrettable; so much money and prestige going down the drain. That there are values enthymemes in research springs from the nature of culture, i.e., where assertions are made that such and such is a value or is not a value or that something is better or worse. The outsider, which in a way is the role of the scientific observer, may not be committed to the value issues defined in a culture but the insider, as a bearer of that culture, will of necessity be involved. Whether the researcher is so detached in his own setting, Mannheim's free floating intellectual notwithstanding, is problematic.

The issue is not whether all propositions are value *or* fact propositions, but whether some propositions indicate variations in worth or quality. Nor is it a matter of the *mens rea* of the person who makes the statement, for the issue of value neutrality shifts, then, from the nature of the proposition to the intent or motive of the person. One ducks the issue as to the nature of the proposition. It is also essential to keep in mind that propositions are not intellectual islands unto themselves. They are interconnected so that in dealing with propositions about culture and society, one may be dealing with both fact and value propositions or judgments.

For example, the proposition "all societies must have institutionalized inequality," (Davis, 1950, p. 368) another way of saying that no society is classless which is not even empirically true (Davis, 1950, p. 521), is a value judgment. The same would apply to the proposition that "group ends are and must be superior to private ends [Murdock, 1949]." While dictionary definitions are not conclusive, the word "must" is given as "denoting am (or is, are, etc.), obliged, required, completed, etc. Must

implies necessity or compulsion, whether physical or moral." If we take this dictionary definition, it is no longer so clear as to whether the statement is a fact statement or a value statement or some sort of hybrid. Typically, this proposition is taken to mean a fact proposition. If the word "inequality" is a qualitative predicate, it is moving in the direction of a value proposition. If the statement is true, then any concept of "equality" is either a delusion or an illusion, but inequality is meaningful by contrast to equality, since these are value terms, Indeed, a whole question as to the nature of a value vocabulary is raised. If the question were raised as to whether this inequality is good or bad, the immediate objection is that the answer will be in the form of a value judgment which is of no concern to a value-neutral scientist. However, if the line of argument is closely followed, the implicit justification is in terms of instrumental efficiency. This inequality is right or good because it will guarantee that the most important positions in a society will be filled and be adequately carried out by the best qualified personnel (Davis, 1950, p. 361). The justification is full of value implications—most important (in contrast to less important), adequate (vs. inadequate) best qualified (to less qualified). Inequality, thus, is good, and good is a matter of utility, and the use of the word "must" is moralistic, though not in a carping sense. The converse of the proposition would be that equality is bad (disfunctional) insofar as the most important positions in a society might not be filled and be inadequately carried out by unqualified personnel. So much for democracy and a huzza for elitism.

Let us take a second case, the typical interpretation of the alogism of race. A value-neutral approach would simply describe racism as a set of convictions about society and man and a set of discriminatory practices, a system upheld ultimately by force and violence. Value-neutrally, if it is that, no more can be said. It would be argued that this set of convictions and practices is normal to the person upholding them. The conduct of the racist is as natural and normal as any other kind of conduct. It is on the same level as dropping an atom bomb, teaching a class, reading a paper at a conference, as normal and natural as gassing and incinerating several million Jews. No distinctions can be made. There is simply behaviour. If this is described and a couple of variables intercorrelated, the task is allegedly complete.

Most discussions of racism in sociology texts and elsewhere do not stop with its delineation. The alogism and cant of naturalness and of normality are ignored, and racism is evaluated, that is, its significance is ascertained. Racism asserts existential and valuational propositions about the world and man. It presents itself as an adequate interpretation of society, as a social theory, but then, its propositions are true or false, a matter of truth value; and the gist of further analysis is that the propo-

sitions are false and are not the basis of a sound social theory. If the ideas are false, so are the associated practices, or to use a better term, they are a perversion of the social. Racism, is false, error, and "dis-functional."

To take a third example, it seems that sociologists are still fighting the battle of the enlightenment against what Voltaire called "l'infame!" The standardized version is (1) that religion is a means of social control and a rationalization for a status quo; (2) that religious beliefs and ideas are "illusionary," "fictitious," "imaginary" and "anthropomorphic," in short, the judgment that religion is useful non-sense, valueless ideas but valuable (instrumentally only) practices (Davis, 1950; Slotkin, 1959; Hobbs, 1951). Durkheim explains religion away and makes it an epiphenomenon of society. Religious ideas and ethical or practical ideas are simply "as ifs" or in a phrase of Hans Vaihinger about all fictions, that they are theoretically contradictory (valueless) but practically most fruitful and valuable. "Das ist eben die Tragik des Lebens, dasz die wertvollsten Begriffe realiter genommen, wertlos sind. [Vaihinger, 1918]." That the valuable is valueless is a contradiction, whether that is the tragedy of life or not. The premise that value is by nature irrational, or charitably, non-rational, precludes value prediction. This view has gone on for centuries and was first expounded and defended by the Sophists. Weber's ethics of responsibility is no ethics at all but a form of Machiavellianism, antedated, of course, by Thrasymachus.

The value slant of the sociologist directs his attention primarily to the nature of means, and he is concerned with only instrumental efficiency or the economizing quality of the means. The question of ends is generally set aside as irrational, a matter of arbitrary, personal preference. There is no inherent reason to prefer one set of values to another, a point worth considering by proponents of this view when they are awaiting liquidation in some concentration camp in a future war. The value stance is pragmatic, utilitarian and relativistic. What works is good, what is useful is good, and there are no absolutes. The basic position is a form of raw empiricism and a nominalistic metaphysics. Knowledge can be derived only from *the* method which is induction based upon particulars. The results derived from the method are supported by such value-neutral adjectives, as "reliable, scientific, empirical," in contrast to such pejorative terms as, "unreliable, speculative, faith" applied to the propositions resting upon al non-*the methods* (*Adler,* 1956). How the nominalist position is derived *a posteriori* is never made clear, and if it is not based upon an induction from particulars, it must perforce be unreliable, unscientific, and speculative. In addition, sufficient questions have been raised as to the validity of pragmatism and of utilitarianism as the major principles of an exiology, but this does not deny the use of the concept of workability, i.e., what works well not

just what works, and usefulness as subordinate concepts. They are essentially concerned with derivative values, those which are a means to the realization of a value which is such in its own right. An intrinsic value is valuable in itself apart from its consequences, most clearly seen in esthetic and intellectual values. In social terms, and following Weber, these would be *Wertrational* in contrast to the *Zweckrational.*

While it is highly questionable whether the social sciences are value neutral, there are many disciplines in which there is a working together of fact and value propositions, in other words, there is knowledge and the use made of it. The helping professions, the teaching profession, arts, crafts, and technology are concerned with concepts of suitability, preference, workability, the "normal" and "deviant," significance, appropriateness, individuality whether in person or thing (as an art object for example). Perhaps the concept of ambiguity might be included inasfar as the relational nexi are in some way beyond the ken of the particular person, hence, an element of risk, uncertainty, and mystery—quite unlike the piercing eyes

> That fix you in a formulated phrase
> And when I am formulated, sprawling on a pin
> When I am pinned and wriggling on the wall
> Then how should I begin
> To spit out all the butt-ends of my days and ways?
> And how should I presume?

Indeed, the X-ray eyed intellectual technician probing and analyzing until he has what he wants in a formulated phrase may token the mechanization and dehumanization which Eliot is so strongly protesting. Prufrock is no longer human but a thing, like Gregor Samsa in *Metamorphosis.* This is the inherent danger if the scientific account is taken as a complete account, "the result of a false valuation of the objective attitude, which makes it normative for all possible attitudes [MacMurray, 1961]."[1] It would suggest the dominance of derivative or contributory values over intrinsic values, the impersonal over the personal (Mac-

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1 MacMurray, J., *Persons in relation.* New York: Harper and Brothers, 1961, p. 38. Much of contemporary existentialism and phenomenology is pertinent to this issue. Van Den Berg, J. J. *The phenomenological approach to psychiatry.* Springfield: Charles C. Thomas, 1955. Kwant, R. C. *Phenomenology of social existence.* Pittsburgh: Duquesne University Press. Binswanger, L. *Grundformen and erkenntnis menschlichen daseins.* Zurich: Max Niehans, 1953. *Rencontre, encounter, begegnung: Contributions a une psychologie humaine dediees au Professeur F. J. J. Buytendijk.* Utrecht: Spectrum, 1957. Dahlke, H. O. *An existentialist examination of the naturalistic, positivistic frame of reference.* Proceedings of the West Virginia Academy of Science, 1961. MacMurray's point of departure is the I-You relation which is prior to the impersonal or scientific abstractions which cannot stand for the whole. Science has no concept of individuality, preferring the constance or invariableness of abstract relations, of which mathematics is the ideal, though mathematics is not an empirical science. Binswanger's premise is "das Miteinandersein von Mir and Dir—Die Wirheit." Kwant starts with similar premises. All of this has connections with Buber's now vulgarized distinction between I-Thou and I-It. That man is by nature social is the essential theme, but this was put forth by Aristotle, and he seemed to have a less sanguine outlook: "For man when perfected is the best of animals, but, when separated from law and justice, he is the worst of all; since armed injustice is the more dangerous, and he is equipped with arms, meant to be used by intelligence and virtue, which he may use for the worst ends. Wherefore, if he have not virtue, he is most unholy and the most savage of animals, and the most full of lust and gluttony." Evil needs accounting.

Murray, 1961).[2] The quality, even in the helping relationship, of the I-You primordial relationship is well expressed by Carl Rogers (1955)

> I launch myself into the therapeutic relationship having a hypothesis, or a faith, that my liking, my confidence, and my understanding of the other person's inner world, will lead to a significant process of becoming. I enter the relationship not as a scientist, not as a physician who can accurately diagnose and cure, but as a person entering into a personal relationship. Insofar as I see him only as object, the client will tend to become only an object. I risk myself, because if, as the relationships deepened, what develops in a failure, a regression, a repudiation of me and the relationship by the client then I sense that I will lose myself, or a part of myself [p. 267-278].

This statement suggests this synthesis of knowledge, and value in action, the unity of morality and work, and compassion when the Other is involved. Knowledge and value are inseparable without any vitiation of either. Valid knowledge is secured without its being skewed by biases, though firmly directed by a sense of value, and values are not viewed purely instrumentally. In fact, the professions don't make sense if this unity is broken. If it is, one result, for example, was certain infamous Nazi doctors.

An Approach to Values

How a person approaches the study of values in itself expresses a value perspective. One is essentially contemplative in the sense of determining or pointing out what is there in the matter of values. This is essentially descriptive, presumably value-neutral, and represents the scientific approach. The second stresses active involvement. Description, analysis, and whatever theory is constructed is related to upholding, changing, or creating new value systems, a practical-critical activity as expressed, for example, in Burke's writings on the French Revolution, in Lincoln Steffens' attitude that social facts were studied for the sake of getting rid of them or in the Theses on Feuerbach (Steffen, 1902). "The question whether objective truth is an attribute of human thought is not a theoretical but a *practical* question. Man must prove the truth, i.e., the reality and power, the 'this-sidedness' of his thinking in practice. . . . The philosophers have only *interpreted* the world differently, the point is, to *change* it [Marx & Engles, 1947]." This view has some affinities with existentialism. My own predeliction is for the second stance, i.e., the study of values and their impact on social relation and social structures towards the reformulation and construction of a society on humanistic ends. Specifically, this involves the formulation of public policies and their instrumentation in the body politic and civil society. The

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[2] Shirk, E. *The ethical dimension.* New York: Appleton-Century-Crofts, 1965. "When good use of each other prevails, persons interact to the benefit and fulfillment of each," p. 282. This is coupled with the esthetic appreciation of the other so that there is an interesting synthesis of both instrumental and instrinsic valuation.

end is a just society and a fully functioning individual. To do this is no mean task.

Most approaches take their point of departure from the individual and then gradually build up to some considerations of values and society.[3] At times the aproach seems atomistic in the sense that a separate, isolated individual is assumed and within this individual certain tendencies, drives, instincts, needs, or what have you are postulated as the dynamo of the person (Dahlke). These "entities" or processes determine how the individual contacts his environment, draws from it and shapes it. A somewhat different stress places emphasis on the person as valuer in a value-in-context situation. In this proposition the person is not driven by so-called inner needs and tensions towards need satisfaction and tension reduction but process in terms of growth and self-realizaiton (Moustakas, 1956). A valuer is both *homo sapiens* and *homo faber.*

A different emphasis but still upon the individual is the determination of his value parameters. This becomes a more difficult problem in cultures where there is a plurality of value orientations rather than a unity. However, even in simpler societies the problem may obtain. A man who is practicing *berdache* still orients himself on the male values though in a different manner. In our culture, assuming the existence of five value orientations, then the problem becomes one of how these five are ordered by the person, i.e., his value scale. On the other hand, if behaviour and values are a matter of the context or situation and if a person is within a particular situation, his value parameter and behaviour, or his values in action will be correlative to those of the situation. On the other hand, if the siuation is relatively unstructured or one of conflict, the value in action behavior may express his group identification if he is acting as a representative of the group or possibly the top of his value scale. The presumption is that the value scale is

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[3] This is essentially the British empirical tradition. It is interesting that Hobbs has become a bit fashionable with some current sociologists. John Dewey defines the issue as process, i.e., as *selective-rejective* behaviour, cf. Lepley, Ray. *Value,* Columbia University Press, New York, 1949, pp. 64-67. The term "caring-for," suggestive of Heidegger, is introduced to indicate a particular kind of selection-rejection within the life processes. Carings-for and valuing are identified. Performing "caring for behaviours so that they are colored and directed by foresight . . . fall within the value-field proper," and if non-humans perform in this manner, then they too are engaged in valuing behaviour. Words to characterize the forms of caring-for behaviours include: "prizing, holding-dear, cherishing, esteeming, admiring, honoring, approving, reverencing, supporting, standing-up-for and/or by being faithful, loyal, devoted to, concerned, occupied with." Dewey makes no truck with instrinsic values, writing them off as mentalistic and transcendent. But process has to involve something i.e., qualities that are admired, esteemed, etc. Also the context is significant. Presumably these two dimensions are covered by the umbrella term life processes, but it is also quite clear that persons and a culture do not value life professes high by virtue of suicides and wars. It would lead to the proposition that the man who commits murder with foresight of outcome finds his action good. The murdered may not think that at all nor the society. There is a kind of relativism here, and I recall a study of Dewey in which the major thesis was that his philosophy was nihilistic. Morris' concept of "preferential behavior" is similar to Dewey's, though he argues that selection-rejection is too vague. However, all that Morris does is to explicate what selection-rejection could mean. Cf. Morris, Charles. *Varieties of human value.* Chicago: University of Chicago Press, 1959. Pp. 211-223. His distinctions between operative, conceived, and object values and of positive and negative preferential behaviour are also viewed individualistically. His concept of social values is an additive concept of preferential behaviours, a sort of like-mindedness or abstract identity. There is no concept of values embodied in institutional structures.

identical with the person's generalized other and so may be a constant in a variety of situations, but this would have to be further determined. However, it might explain what *prima facie* is a paradox, *viz,* that a social science teacher in a high school where the humanist orientation is assumed to prevail is capable of giving his teaching a strong nativist twist, and this might be thought of as a subtle perversion of teaching if the humanist model is assumed to prevail.

One needs to differentiate the determination or incidence of value systems within person systems of the population at large and the incidence of the values relative to various social categories and especially the status-role category, for the latter may be a phase of an institutional order or a phase of the social structure, i.e., age, sex, color, or class categories. The analysis in this case would proceed not in terms of what the values are in terms of a person's generalized other but in terms of the values as they cluster relative to status-role, and since a status-role involves reciprocal or paired relations, i.e., within another status-role, the determination involves a consideration of both. This is explicit in the concepts of rights and duties as they inhere in various status-roles. This leads to a methodological issue as to what the person is when he is responding to a questionnaire. Is he responding in terms of his generalized other or is he responding as an incumbent of a specific status-role. Later correlational technique cannot resolve this. Say one correlates age with a score on a value inventory and finds a positive association. What does this mean? The numerical age is an abstract item. Can we presume that this correlation means that he was responding *as if* he were occupying that age status-role, but that status-role will have its special cluster of values. The same issue would apply to a correlation with sex. If students are filling out the inventory, is this being done in terms of the student role in a humanistic setting? Since the filling out itself is a social relation, then what mutual definitions take place in the filling out of the questionnaire? If a man is a member of a trade union collaborates in the research and the common man score is low, would it make a difference if he were asked *qua* member or official of a union, how would you rate these statements? If we adopt a sociological frame of reference of the peerson functioning in a social field occupying some status-role or office, then it would appear that both field status-role, office, or other social category in effect would determine the individual's response. Perhaps scores on a schedule might be more meaningful under such circumstances. Otherwise, one cannot be too certain. Indeed, the history of intelligence testing attest to many of these issues, so that I.Q. scores, for example, were a function of the person's cultural background or of the special social field set up by participants and examiners.

While status-role and office in the social structures of a society constitutive elements as they are, could be useful in the study of values, those which are independent of institutional associations are more likely

to be poorly defined (e.g., our sex and age status-roles) and the office might merely suggest a niche in a much larger organization. Hence, the determination of values needs to proceed from appropriate institutional structures. These would not only include instituional associations but also ceremonial occasions and rituals as they are connected with events and persons receiving high valuation and respect. The content of special communication can be included. By this I refer to the "folk" mythology of a society. These fables or tales embody the values that are to be affirmed and supported and also those to be avoided or oppossed. Much of this type of story involves the heroes and heroines, the martyrs for the cause, all of whom are esteemed and in contrast, a type of negative mythology, those persons and events which are held in ill repute and low esteem—the villians. The communication content I have in mind is that which can be thought of as fairly standardized, standardized because of its constant transmission from one generation to the other. One might further include humor, textbooks (Hobbs, 1951), popular magazines, songs, legal codes, etc., material which could be subject to content analysis.

The type and form of values stressed in this approach are socio-cultural. This is to differentiate them from purely personal or idiosyncratically held values. The concept of socio-cultural values assumes that they are shared by several people as a result of communication and generally involves a process of indoctrination, instruction, suggestion, or imitation. All major institutional associations, moreover, will create special ancillary bodies whose function it is to indocrinate, instruct, and suggest. So-called character building associations are particularly concerned with the transmission and inculcation of values, their values especially. This expresses a Platonic maxim: "What is honored is cultivated, and that which has no honor is neglected (Jowett)." A disadvantage to this approach is the detection of possible emerging values rising in the more fluid, less structured areas of a society.

This difficulty may be overcome by focussing on areas of controversy and conflict. Here is where social change is illuminated in terms of a literature (in a very broad sense) of protest, attack, debunking, and asserting the new. This is the literature of polemics which may range from song, fables, slogans to learned treatises. In fact, one of the characteristics of a social movement is the development of a literature. The significance of controversy is that proponents and antagonists need to take a definite stand in terms of their value premises. This does not include the possibility of dissimulation, i.e., to go along with the popular tide and yet attempt to retain the original set of values as operating principles (Jacobson, 1950).[4] However, I would feel that this would hold

[4] Cf. Jacobson, Norman. *The concept of equality in the assumptions and the propaganda of Massachusetts Conservatives, 1790-1840.* Unpublished doctoral dissertation, University of Wisconsin, 1950.

for the short run. The more specific the controversy the more specific will be the value stance portrayed.

Controversy of great import in the study of values is that which centres on public policy formation and the implementation of public policies. It is important because it is involved in the design of the culture and the society. In a situation where there is a pluralistic set of value systems, each proponent attempts to shape the design in terms of his value orientation on the one hand and to oppose the shaping of it by those representing other value systems. The amount, quality, and distribution of opportunities of life chances of both persons and groups are created, supported, changed, or abolished by these policies. While constitutions, laws, and administrative rules may be one index of the manifestation of values, the national budget may be another. The budget may be of more practical significance as it involves the allocation of resources and so affects the implementation of policies.

The approach to the study of values from the viewpoint of institutional organization, policies, and controversies is primarily concerned with the issue of cultural and social organization, with the issue of directed socio-cultural change, with social or public order. Concern with the value hierarchy of the person systems is quite secondary, and in some ways, less significant. This idea is on the premise that the person, generally, will function in terms of the values structuring the social context in which he is functioning. This proposition would seem to preclude dissent and negative evaluations, but no social context is completely tight, except perhaps in isolated, preliterate groups. In complex societies such as ours, there is a certain looseness or randomness, sufficient differences, alternatives and significant events to allow of critical evaluation and deviating behaviour.[5] Hence, fringe groups can develop within the social interstices of our society. At any rate, the problems I am interested in are those dealing with institutional and public decision-making, the implementation of policies, and the nature of social and public order.

Methodological Procedures

How one proceeds is relative to one's objectives. One objective may be to discover the incidence of values affirmed in a population, i.e., the ordered value parameters in person systems. Another could be to delineate the process of how a person develops his value parameters. A third possibility would be to determine the values in the culture at large and to see how these values influence institutional organization and

[5] The Beatnik and Hippie phenomenon falls into this situation. Cf. Keniston, K. *Young radicals.* New York: Harcourt, Brace and World, 1968, and *The uncommitted,* New York: Harcourt, Brace and World, 1965. The so-called underground press is an interesting source, e.g., *East village Other;* east coast; *The oracle,* west coast. Yablonsky's *The Hippies* founders on his own value system.

activity, affect social controversy and policy formation as these bear upon the creation of social or public order or disorder.

The Individualistic Approach

If we take the first objective, the principle has been to infer values from a person's verbal or written statements or from his responses to some scale, (symbolic disiderata, conceived values). Values inferred from statements or responses to verbal statements have been employed the most. The Allport-Vernon scale was one of the first constructed and stimulated much further testing and reformulation. However, the scale already presupposed a variety of value dimensions. This was based upon the six evaluative innate or given tendencies in man as developed by Spranger in his *Lebensformen* or *Types of Men.* The problem was how these six values were found in a given individual. The scale "consists of a number of questions, based upon a variety of familiar situations, to which alternative answers . . . are provided [Vernon & Allport, 1931]." A sample is as follows:

> The main object of scientific truth should be the discovery rather than its practical application.
> (a) Yes ..... (b) No .....

where (a) is marked as three points and (b) as zero. If a person marks (a), it is taken to mean a preference for theoretical over economic values.

> If you should marry (or are married), do you prefer a wife who—
> (a) can achieve social prestige, commanding admiration from others.
> (b) likes to stay at home and keep house.
> (c) is fundamentally spiritual in her attitudes toward life.
> (d) is gifted along artistic lines.

Women have an alternative form to this question. The numbers indicate the weighting of the question. Here the ordering of preference is for (b) socia, (c) religious, (d) artistic, and (a) political values. In this test the authors attempted to secure "equal popularity in the alternatives." Using the test of internal consistency, they determined the diagnostic efficiency of the items by constructing a diagnostic index which led to either the retention or rejection of the item. They avoided as much as possible the repetition of specific common elements in the questions, thus securing a variety of items. Finally, they attempted to secure situational questions that were as natural as possible of respondents for whom the test was intended. This last presupposes considerable knowledge about these respondents.

Many variations were derived from the original Allport-Vernon scale. Using materials similar to Allport-Vernon scale, Lurie divided his test into four categories: (1) interests, (2) ideals, (3) preferences with regard to people, (4) beliefs and opinions. Each item was responded to by

rating it on a seven point scale. The Thurstone multiple factor technique was applied to determine the underlying factors in the tests. He reported four basic clusters of items: "I—the *social* type, which values especially human relations; II—the *Philistine* type, which emphasizes utility and power at the expense of beauty and harmony; III—the *theoretical* type, which stresses truth and cognitive ,values [Lurie 1937]." Three less important factors influenced the scores to a marked extent: open-mindedness; practicality, and esthetic attitude, which Lurie describes as superficial and on-looking rather than participating. The scores were obtained from students at the University of Chicago, of some significance in itself.

The Maller-Glasser test was constructed to measure only four interest categories: aesthetic, economic, social, and theoretical. The political and religious interests of the Allport-Vernon test were omitted. The scoring was based on the ranking of alternatives on two of its three parts and an absolute rating of items in the third. The inventory was validated by eliminating those that failed to differentiate the respondents from among four criterion groups: a group specializing in business and advertising for economic value; a group specializing in social work and nursing for social value; a group specializing in music and art for aesthetic value; a group specializing in mathematics and science for theoretical value (Glasser & Maller, 1940).

Cuber and Pell use hypothetical situations rather than generalized or specific statements (Cuber & Pell, 1941). Their schedule dealt with twelve family situations dealing with family morality. The situations were derived from novels, dramas, and the personal observations of the writers. An advanced student in sociology wrote up a number of situations thought to involve somewhat controversial moral issues. The cases were subjected to a few critics to correct them for ambiguities of statement and then submitted to informants. Each situation was followed by questions, such as, "Is this morally wrong for Helen" (John), or "Is this right for Dick," (Mary, Dot—a mistress triangle).

Morris developed a questionnaire involving descriptions of patterns of living based on the conception of the desirable life described in leading religious and ethical systems (Morris & Jones, 1955). It contained 13 descriptions of ways to live. These were to be rated on a seven point scale in terms of how one "personally would like to live." A rating of one indicated "I dislike it very much" and a rating of seven "I like it very much." Factor analysis was applied to the ratings to ascertain dimensions of the various conceptions of the desirable life which were logically specified earlier.

Most of these studies are not involved in the discovery of values affirmed and supported from the target population. These are drawn from other sources according to some sort of criterion, e.g., Spranger's

types. Either hypothetical situations, generalized or specific statements are prepared in a variety of ways. Statistical techniques are used to determine reliability and validity, though validity is also checked by use of appropriate reference groups. At times there seems to be a sort of *ad hoc* quality in these formulations, and it's difficult to determine into what frame of reference they fall. They are somewhat free floating and detached, i.e., from a social frame of reference which would include either a grounding in the status-role complexes or in institutional structure and organization. These difficulties can be seen in Carter's "Koloman" questionnaire where the values incorporated were derived from the following sources: a list of concepts selected by officers in the American foreign service for Far Eastern countries; some value categories drawn from White's content analysis; concepts stressed in U.S. Information Service literature; William's catalogue of American value orientations; impressions that Carter gained from area literature and area consultants (Carter, 1956). This is a real melange whose usefulness is then rationalized in a variety of ways.

The advantage of the Card-Hyman-Young (1968) construction is that the original derivation of values lowers from the ongoing institutional organization. Not only is it appropriately anchored in its socio-cultural reference but also in contrast to the other formulations, the value orientations are systematic and complete, complete in the sense that they represent a *Weltanschauung.* The use of a panel to select statements in accordance with a five point scaling is standard technique. However, later statistical manipulation is relative to the value of each item. As I and some colleagues examined the statements, we felt that some were ambiguous in themselves, and some could be meaningfully assigned to more than one value orientation. Using the scales with about 135 graduate students in social work, we found the following reaction to the scales. It was too absolutistic, hence, objections to statements like "the best" or "the only," etc. As a consequence, students preferred to scale the statements in terms of ID, N, or IA. Reference was made also to ambiguity of statements. Others felt that statements did not individualize enough, that they were too general. A few thought that the items tended to denigrate an area, as in the religious scale. A couple thought the statements were culture-bound, more applicable to Canada than the United States. Lastly, quite a few thought that two scales were overly obvious, those dealing with the working man and with the ethnocolor minorities. What the responses suggest to me is a reluctance to make choices which indicate strong commitment, and may also express that training to be non-judgmental. Be as that may, the data suggests a sort of neutral tone. Thus, the Card-Hyman-Young scales, despite the excellent statistical analysis, is limited by the nature of the selected items.

If one is interested in the incidence of value orientations in a population aside from averages on the C-H-Y scales, and this does give a sense of pattern, there may be a way of individualizing this. The approach has been labelled cross-sectional analysis, a method in which the schedule is ordered as a whole and not in terms of discrete items. Possibly three patterns could be developed. One could take those schedules in which there is a very high score and see what variations are associated with that score. For example, assuming a very high score on the humanist scale, would a typical pattern consist of the following: fairly high on the ethno-minority and common man, moderate to low on the religious, low on the market and nativist (patriotic). There might be some variations, so that some subgroups might be formed. The same could be done with reference to the other value scales. One could hypothesize that a person scoring high on the nativist (patriotic) might score high on the market, moderate on religion, and low on the remainder. Such a grouping of data may bring it more in line with the ordered set of values for the person system.

The second pattern would be developed in a similar manner, say, the patterns of the neutral zone, scores from 28-36. There might be some variations within this, and knowing how many schedules fall into this area, one would have some idea of those who hold their values cautiously on the one hand or on the other refuse to commit themselves to the manner in which the value statements were phrased in the schedule. This group may function perhaps in a *Zweckrational* or traditionalistic manner, i.e., to respond in terms of the expediency or customary expectations of a situation. If patriotism is called for, patriotic behaviour is forthcoming. These are not "true believers" as those in the first pattern. Perhaps many of these are the nominal members and participants in groups. These are the ones with flattened values, in a sense like Plato's democrat.

A third pattern, though I think it rather unlikely, would consist of a pattern dominantly negative, though this negativity acknowledges the existence of the values. The problem may be one as to whether the response on the schedule is forthright, that the negativity is not a rejection of values but a rejection of the schedule and a covert refusal to participate in the research social field. It is quite possible that some of this may be applicable to those falling within the second group, so that the flattening represents the decision as to how the person is going to function in the research situation. As we are more sanguin and have a vested interest in the success of the project, we may tend to look for cues which indicate forthright participation and overlook those which would suggest the reverse. Statistical analysis of the schedules, obviously, cannot catch these nuances of the interaction out of which the scores finally issue.

As a peculiar kind of occupational in-group, we have our particular blinders and limitations, especially to our methodologies. I recall showing a person the statements on an alienation scale. The response was a big laugh. My own reaction was to be rather incensed about this unenlightened individual, but on second thoughts, I felt that the laugh might have something to it. Perhaps the few items designed to test alienation were a bit presumptuous. How much diagnostic weight can an item carry? To what extent can an item which may be part of a complex represent the whole? Are we committing unintentionally the fallacy of composition? Except where there is outright refusal, it may be possible, unpleasant as the thought may seem, that we may be humoured.

The Institutional Approach

The problem here is to determine the values incident to a culture and society. The focus is not on the person system but on the social system. Some approaches have been touched on in a previous section. The approach may be thought of as somewhat archeological and historical, i.e., to determine value configurations from cultural artifacts and from the content of communication. However, both artifacts and communication content are wrapped up in institutional structures. This data is the objective precipitation of the values affirmed and supported. Further, from the numbers of institutional associations and their memberships and their ecological distribution, we could know the extent, the significance, and the spread of values in that society. These would constitute the core values, but these will vary with the institutional complex. In addition ceremonial occasions supported by the society at large are also an index of values. For a systematic account, however, one has to turn to the literature of the representatives speaking for the institutional association. As I have indicated before, none of the individualistic approaches with possible exception of the Card-Hyman-Young scale touch on the variety of dimensions which are found in these institutional statements.

As the approach puts heavy weight on the use of documentary materials one has to work with historical methods on the one hand and content analysis on the other. Not only is one dealing with what one may term standard institutional output, but one can also utilize the material put forth by persons acting as spokesmen for the instructional association in controversial issues. One can also utilize the writings of those whom one may consider exemplars. For example, Weber referred to Benjamin Franklin as an exemplar of the Protestant ethic in which he used the autobiography as a source. Aside from the secondary sources which he used extensively, Weber used the writings of the Puritan Divines and others, relying heavily for some reason on Baxter, for his

data to not only develop the Protestant work ethic and the inner worldly asceticism concepts but also as a source in linking this aspect of Protestantism with the spirit of capitalism. Aside from their religious focus these homiletic writings dealt extensively on how a person should conduct himself in business.

Similar approach is used by Sutton, *et al.* in their examination of *The American Business Creed,* a study with which I was unfamiliar until I had completed my work. While there is congruency on the whole, I tend to diverge from their stand on the idea of overarching values incorporated in all American ideologies. They state their approach as follows: "This study is an examination of the ideology of American business, as it is revealed in the public statements of business leaders, the institutional advertisements of large corporations, the literature of such business associations as the United States Chamber of Commerce, the Committee for Economic Development, and the National Association of Manufacturers. The material of our study has been drawn from recent years, much of it from the period 1948-49. It has included business advertisements in newspapers and magazines, books, pamphlets, and speeches by individual business leaders, business testimony before Congressional committees, the publications of trade associations and other business associations, and the like [Sutton, 1956]." In similar manner one can draw materials from all the other major institutional associations and construct a coherent, systematic, in the sense that it refers to many areas of life, value orientations. From this we can also see more sharply the significance of value controversies, what values should be upheld, which debunked, attacked, etc.

With an approach of this sort, one can become aware of the reason why universities which ostensibly humanistic at the same time in teaching support different values. Thus, a cursory examination of the index of introductory economic textbooks, one notes that the concepts emphasized, in part as measured by subentries, show a neo-Malthusian model, with the emphasis on competition, scarcity, want satisfaction, etc., i.e., a point of view which is not humanistic, yet put forth as knowledge. Of course, in later work the student discovers that things are rather different. A study of sociological texts published between 1926 and 1951 attempted to show that these books were biased against business and a competitive economy, pro-government and governmental regulation of economic activities and "admittedly biased toward individualistic, feministic, pacifistic, and materialistic values (Hobbs, 1951, p. 9)." Allport thought he had found a thought style among psychologists by examining those concepts which had *re* (as in reaction or regression, for example) and those with *pro* (propensity, projective, e.g.) and found that there was a dominance of "re" concepts as against "pro" concepts (Allport).

A standard critique against this approach is that these verbal statements or communications do not necessarily jibe with the actual conduct or behaviour of institutional associations. The conclusion erroneously is drawn that the formulations are invalid or at the least dubious. This criticism has been directed also to all opinion and attitude studies. This questioning simply poses a further problem of the interconnection between values and action, an issue touched on in another paper. The implication that there may be no connection or a dissociation between values and actions, would need demonstration. Qua institutions, schools, do support knowledge (other values too), but they do support knowledge. Patriotic societies are militaristic, ethnocentric, and xenophobic in point of view, and members thoroughly imbued with such values will support policies putting them into effect—bigger armies, conscription, restrictive immigration laws, laws supporting flag worship, surveillance of curriculum content in the schools, etc.

Summary

This paper attempts to show that the social science and sociology in particular are not value-neutral. Both fact and value propositions are made. The value bias is essentially pragmatic and utilitarian. On some issues the value bias comes out very strongly. Indeed, sociologists have been rather fond of unmasking the value presuppositions of one another,[6] a process which in itself attests to the fact that the many propositions and studies made are not value neutral. In other disciplines there is a uniting of both factual and value statements without any qualms of the scientific conscience. Insofar as they are practical disciplines, they must perforce involve themselves in value judgments.

A socio-cultural approach to values is dicussed. Their social anchorage is clarified. Some problems were touched on. A distinction was made between studying the ordering and incidence of values in the person system, and in the social system. The methodology tended to be individualistic and statistical in the former, historical and content analysis oriented in the latter. Each is appropriate in its way. How one approaches the problem is relative to one's objectives. For those concerned with socialization, the person system approach may be most useful; for those concerned with public policy formation the latter may be more valuable. A problem remains in the detection of newly discovered values for these are very likely to occur in the interstices of a society, but eventually they will come more to the fore in the social arena in terms of conflict and controversy.

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6 Cf. Bendix, R., & Lipset, S. (ed.) *Class, status, and power.* Glencoe: The Free Press, 1953, p. 254, for a series of unmaskings. Sheppard, H. *Approaches to conflict in American industrial sociology.* Paper presented to the International Sociological Association, 1953. For the contention that the Parsons School are propagandists for the American *status quo*, Alvin Gouldner in *Science*, October, 1968, *Pp.* 247-249.

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Recent political trends coupled with the sudden availability of Soviet writings in translation have heightened interest in Soviet psychological research, particularly in its unique aspects. This paper summarizes Soviet set theory, as postulated by Uznadze, and reports some of the relevant research in this area. A system of classification of subjects, on the basis of patterns of establishing and extinguishing a given set, is also described.

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The Soviet Theory of Set

Soviet psychology differs from western psychology in three major ways:

1. Soviet terminology is not always synonymous with that utilized by western psychologists, either in the particular term used to denote a common concept or in the assigned meaning of a common term.

2. Soviet researchers do not always adhere to the rigid experimental design and statistical analysis incorporated in most western research. For example, many Soviet studies quote only percentages as examples of statistical treatment.

3. Soviet psychologists generally interpret psychological research in terms of Marxist-Leninist philosophy, however, during the last decade this orientation has become somewhat less obvious.

Soviet terminology presents the greatest source of difficulty to the western reader since it requires not only the learning of new terms, but also a re-orientation of the individual to see common terms in the light of Soviet thought. Initial attempts to assimulate Soviet terms directly into a western schemate tend only to confuse the reader. When terms familiar to the western reader appear in Soviet writings, it is crucial that he be aware of the exact manner in which the term is being utilized by the Soviet author.

It thus becomes essential for certain terms to be defined before considering Uznadze's theory of set is considered. The following defini-

tions are reproduced from the glossary contained in *Soviet Psychology and Psychiatry,* 1966, IV, 10-15.

> Consciousness: The highest form of psychic activity . . . a socially conditioned reflection of reality. [Note: psychic means mind or mental] First signal system: System of conditioned reflexes to non-language stimuli; includes both somatic and visceral reflexes; is common to animals and man; in man it is very intimately related to the second signal system . . .
> Second signal system: System of conditioned reflexes to verbal stimuli; a set of reflexes specific to man and distinguished from the first signal because the rules of interaction of reflexes to verbal stimuli differ from the rules of interaction of reflexes to non-verbal stimuli, viz., abstraction and generalization come into play.
> Psychology: The science of the psychic (mind) as a function of the brain reflecting objective reality . . . Much of the research done in the name of psychology would be classified in the West as experimental psychology, cognitive studies or educational psychology.
> Set: Readiness to perceive an object in a certain way which is a function of immediately preceding perceptions. This concept is similar to the Gestalt nation of "determining tendancy" or "set." The theory of set is the basis for a whole school of Georgian Psychology beginning with D. N. Uznadze and continuing with the work of his students, among whom A. S. Prangishvili and R. G. Natadze are prominent.

Uznadze's Theoretical Framework

With the above definitions in mind let us consider Uznadze's theory of set. Two conditions are necessary before a set can be established. First, the organism must be in a state of need; second, appropriate conditions to satisfy this need must exist. ". . . an essential and necessary condition for the development of the set is the unity of these two conditions [Uznadze, 1966, p. 28]."

Smirnov (1967, p. 16) points out that in the Soviet tradition, it is the ". . . subject, not his separate psychological acts that engage in active relations with reality." Set theory places the emphasis on the individual as the centre of psychological investigation. Smirnov (1967, p. 17) also notes that the set of the individual is a ". . . necessary link between the environment and psychological functions." This link is the result of a 'need,' which Uznadze (1966, p. 24) uses in the following manner:

> If we imagine that an organism experiences a want of something, for example, economic goods or some other object of value—whether practical or theoretical is immaterial—of activity or conversely, of rest, etc., then in all these instances we can say that we are dealing with some form of need. Briefly, want may be defined as any state of the psychophysical organism which, requiring changes in the surrounding medium, gives impulse to the activity required for this purpose.

Uznadze distinguishes two major types of needs:

1. substantive need—requires something substantial for its satisfaction, e.g., hunger.

2. functional need—requires only activity on the part of the organism for its satisfaction, e.g., epistemic curiosity (Berlyne, 1960, 1966).

Subsidiary to substantive needs are cognitive needs, e.g., interests (Hritzuk, 1968, p. 11).

The second necessary condition for the development of a set is a situation in which the need can be satisfied. This need satisfaction complex is similar to the concept of a determining tendency postulated by Ach (Vygotsky, 1966, p. 54) and subsequently utilized by Lewin (1936). If either component is lacking no set will develop.

The school of psychology founded by Uznadze tends to conceive of sets as conditions of the organism which dispose an individual to respond in a particular direction (Uznadze, 1966; Prangishvili, 1962). This concept differs from that held by western psychologists largely in degree, that is, Uznadze designates set as the central determinant of behaviour whereas western psychologists consider it usually in conjunction with a specific task or situation (Luchins, 1942).

The general postulate underlying set theory according to Uznadze is as follows:

> For any phenomenon of behavior to appear it must be assumed that a living being, with the ability of primitive perception and some form of activated need capable of being satisfied in these environmental conditions develops a relationship with this environment on the basis of the integral state of the set arising in the subject which leads him to perform purposive actions [Uznadze, 1966, p. 209].

The key concept is that the total individual is actively engaged with his surrounding environment. From research being done with illusions (Prangishvili, 1962; Natadze, 1962), Uznadze arrived at the conclusion that illusions ". . . can be detected not only in the sphere of perception, but everywhere where there is a conflict between the actual set of the subject and the stimulations acting upon this subject [Prangishvili, 1962, p. 186]." Uznadze conceptualizes set as being the total past experience of the individual which controls his perceptions and his actions. The western interpretation places set in the role of a correlate of the personality rather than the determining factor.

In accordance with Soviet philosophy, Uznadze presents a model of behaviour in which the individual is an active dynamic person interacting with his environment. The individual is motivated by needs to seek a condition in his environment which will satisfy those needs. The particular pattern of behaviour which the individual engages in is determined by his set.

Methodology

In his experimental work Uznadze started to study how illusions are formed in various modalities, concentrating on the visual and haptic.

For example, set may be established in the haptic modality by the following procedure. Two unequal spheres are presented to a blindfolded subject; he is allowed to grasp the spheres for a moment, then they are removed. The subject is asked to relate the comparative dimensionality of the spheres following each trial. This procedure is continued for a number of trials, which constitute the fixing or setting trials. Once the set has become established or fixed, the subject is presented with equal spheres. This presentation is known as the critical test. In most cases, Uznadze found that subjects continued to perceive the spheres as unequal for a varying number of critical tests, a phenomenon he labelled set illusion. Continued presentation of critical tests in order to attain adequate perception was labelled extinction, which was found to be phasic in nature. These will be elaborated later in this paper.

Principles of Set Theory

There are several basic principles in set theory. Of major importance to the theory of set is the concept of the general nature or integral state of set. If set is a general state of the individual then the set which has been developed in one modality must also manifest itself in other modalities. Uznadze (1966) contends that this does occur and terms it *irradiation*. Further evidence supporting Uznadze's contention of the central nature of set is given by Khodzhava (Prangishvili, 1962, p. 188). Uznadze (1966, p. 82) also notes that the degree of irradiation varies between individuals.

Studies carried out by Uznadze and his co-workers have indicated that lower animals are also under the control of sets (1966, p. 93). Uznadze (1966, p. 225) states that "Whereas the life of an animal is entirely a biological fact, the life of a man is a socially determined process." However, the needs and situations for need satisfaction play identical roles in both man and animal, and in both cases constitute the necessary conditions for a set. The major difference between man and animal is that the animal is unaware that he is an object existing in his environment, whereas man is aware of his autonomy.

It is in this connection that the Pavlovian concept of a first and second signal system can be utilized in the understanding of set theory. Uznadze views human behaviour as functioning on two levels (Hritzuk, 1968, p. 13). On the first level man is stimulus bound, responding directly to a given situation (controlled by the first signal system). Uznadze (1966, p. 112) later terms this the impulsive plane of behaviour. At the second level man becomes increasingly independent of the immediate nature of the stimulus (functioning with the second signal system). As Hertzog (1967, p. 15) notes, "This level of intellectual behaviour . . . is associated wtih the phenomenon of objectification. The first plane is

characteristic of all animals; the second plane is peculiar to man whereby behaviour now becomes regulated by man's cognitive structure."

It is precisely because of man's ability to objectify that a set which is directly conditioned to a given situation can be changed (Natadze, 1962, p. 224). Man is thereby capable of relating to a situation in retrospect, or of purely cognitive problem solving.

Objectification occurs when the individual is faced with conditions which do not satisfy a need, or an obstacle appears blocking need satisfaction. As a consequence the object causing the interference becomes an object of focus, or the relationship of the subject towards the object becomes a cognitive one. The subject becomes conscious of, and objectifies, the situation which has been created, clarifies the interference which is present, and determines his course of action. As a result a new set arises.

Sets appear to be established in the following manner. Initially the set is diffuse or undifferentiated; however, after repeated presentation of stimuli, the set becomes differentiated and fixed. Individuals differ considerably in regard to establishing a set. The ease with which a person establishes a set is called the *excitability* or *fixability* of set and is measured by the number of trials required before the set is established or fixed.

Once that set has been fixed (an illusion established) the process of extinction is carried out. The critical tests are presented until the subject again acquires adequate perception. Uznadze (1966) differentiated three phases in the process of extinction:

1. contrast illusion—the subject perceives that the two objects have been transposed.

2. assimilative illusion—the subject perceives a regression to the fixed set.

3. adequate (veridical) perception—the subject perceives the situation accurately.

Individual Differences in Set

Depending upon the process of *extinction,* sets can be differentiated into two types:

1. static set—the subject is unable to achieve adequate perception, despite numerous exposures to the initial tests.

2. dynamic set—the subject achieves adequate perceptions in the critical tests.

In addition to being static or dynamic a set may be classified as either plastic or coarse. A plastic set is one in which the subject passes through sequential phases of set extinction. Natadze (1962, p. 217) comments that a plastic-dynamic set involves all the phases of set

extinction, whereas a plastic-static set freezes at a certain phase prior to extinction. A sluggish (coarse) set is one in which a phase of set extinction has been omitted.

There are several individual differences in set (Uznadze, 1966, pp. 74-90). In addition to static and dynamic, plastic and coarse, ease or difficulty of fixation, irradiation or localization of set, subjects may vary in degree of generalization of a set to similar stimulus conditions. Individuals also exhibit differences in constancy and variability of set; that is, normal persons follow a constant pattern of extinguishing a set. However, in some abnormal cases, the form of the set is not maintained. Fixed sets may also vary in stability and lability; that is, a fixed set may be maintained in its original form for varying lengths of time for different subjects.

Uznadze (Hritzuk, 1968, pp. 29-30) utilizes set properties to differentiate individuals, particularly by patterns of set extinction. He distinguishes *five* patterns of set extinction:

(1) Subject with static sets who do not progress beyond contrast illusion during extinction trials.
(2) Subjects with static-plastic sets who progress to assimilative illusions during extinction trials.
(3) Subjects with plastic-dynamic sets who pass through all three phases of extinction and attain adequate perception.
(4) Subjects with coarse dynamics sets who do not pass through all three phases of extinction yet attain an accurate perception.
(5) Subjects who are unable to attain a fixed set, whom Uznadze terms *extraverts* (Hritzuk, 1968, p. 30).

Uznadze (1966) further reorganized his classification of subjects according to three basic patterns of set performance: dynamic, static, and variable. Dynamic subjects are characterized by low excitation and sets which are plastic, dynamic, and stable. Irradiation is fairly extensive and relatively low in intensity. Dynamic subjects also have a well-developed power of objectivization.

The sets of static subjects ". . . are highly excitable, coarse, static, intermodal, constant and capable of extensive irradiation (Uznadze, 1966, p. 143)." If these subjects were solely under the control of their sets, they would be classified as schizophrenic (Uznadze, 1966, p. 143) or abnormal (Uznadze, 1966, p. 80). However, due to the process of objectification these people can function usefully in the society. The constant inhibition of the impluses of their sets tends to create an unstable personality.

Uznadze's variable subjects are of two types, variable-stable and variable-labile. "The variable-stable people are noted for their highly developed strength of needs. People in this group rarely show signs of

set constancy; their sets vary from moment to moment (Hritzuk, 1968, p. 31)." The variable-labile group display, in contrast, a weakness of needs. Their behaviour appears to be controlled by the external environment.

The ability to distinguish between variable-stable, and variable-labile patterns of behaviour no doubt develops through extensive interaction with subjects.

SUMMARY

Set, in the Uznadze tradition, is conceptualized as being, the primary aspect of the personality; indeed, it is the basic mechanism from which the personality develops. The concept of irradiation establishes the centralistic nature of set, while the concept of objectification is akin to a cognitive mechanism whereby man is capable of modifying and changing his sets. Individual sets may be identified from the properties of set elaborated upon earlier: static or dynamic, plastic or coarse, constant or variable, stable or labile. In all instances, the key measures from which these properties are derived are (1) the excitability of set, or the number of trials required to establish a set, and (2) the extinction of set, or the number of trials the individual utilized to achieve veridical perception. As a result of his work with set, Uznadze developed the differential psychology of set in which three basic types of personality, or groups of people, were identified:

> . . . a dynamic group (well-balanced, assimilative, harmonious people), a static group (the behavior of people in this group is not on impulsive behavior, but, on the contrary, rests fully in an objectivization, and is entirely voluntary; a constant reflection, and a lack of confidence are characteristic features of these people), and finally a variable group (people with strong urges, men of action, but with a conflicting character structure), whereby this last group can be subdivided into two sub-groups, namely a stable and a labile sub-group (Natadze, 1962, p. 229).

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The attitude of neophyte education students toward the concept educational administration is examined in depth, and compared to that held by two graduate students groups. The significant differences among groups provide for interesting speculation. The semantic differential technique appears to show potential in the study of attitudes toward a concept, as well as meaning to a concept to a individual.

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A Semantic Differential Study of Attitudes Held by University Students Toward Educational Administration

During the past number of years a rather apparent increase in dissatisfaction has been noted toward governance in educational institutions. This reaction to administration, present in many high schools of the nation, has become most visible in student protests or activists movements on university campuses.

Even though much has been written about student power and student protest, little research evidence is available to indicate quantitatively the attitudes of students toward educational administration. There is a dearth of evidence on the direction, the magnitude, or the intensity of the perceptions and meanings held by various segments of the educational community toward educational administration. The news media may wish to suggest that a strong negative feeling exists in most areas toward educational administration. In connection with this Havighurst (1968) states that:

> The critics tend to attribute the shortcomings of the schools to the fact that they are operated by "the Establishment." The Establishment consists of the bureaucrats who administer the schools . . .

Havighurst continues by quoting Jason Epstein who writes that "the urgent matter is to wrench the school system away from the beaureaucrats who are now running it." There seems little doubt that the critics of education are convinced that many educational ills can be traced to

the administrators who run the schools. However, the question remains. What do students think of educational administration? To obtain an indication of an answer to this question, a research project was launched, the initial stage of which is summarized in this report. This particular project was considered purely as introductory to a study in depth of the problem area.

In context of the exploratory nature, the present study sought to explore the perceptions and meanings of educational administration held by university students of various categories, but concentrating on the beginning university student. No attempt was made to determine whether students accept or reject educational administration. The aim was to search for differences of meaning held by various student groups.

The questions to which answers were sought are the following:

1. Can attitudes toward educational administration be measured? Is it possible to obtain overall scores indicating the degree of a favourable attitude, as well as factor scores indicating the meaning of the concept?

2. Do the mean scores vary significantly between sub-groups of beginning university students?

3. Does the mean score of beginning students vary from those of other student groups?

4. If such differences exist, would a factor-match reveal some meaning of these differences?

Design of the Study

Eight hypotheses were formulated and tested by analysis of variance to determine if there are differences in meanings of educational administration held by various groups of students.

1.1 The scores of beginning university students on the concept educational administration as measured by scores on the semantic differential test are not related to the sex of the student.

1.2 The scores are not related to the age of the respondents.

1.3 The scores are not related to the previous year's activity.

1.4 The scores are not related to the type of schools in which students completed their grade twelve education.

1.5 The scores are not related to the size of the high schools in which the students completed their grade twelve.

1.6 The scores are not related to the rural-urban background of the students.

1.7 The scores are not related to the socio-economic background of the students.

2.1 The semantic differential scores held by administrators on the

concept educational administration vary from those held by teachers and students in a positive direction.

2.2 The scores held by teachers vary from those held by students in a positive direction.

The Instrument

The semantic differential test was deemed to be suitable for this investigation. The test was developed during the 1968 Summer Session using as a basis eighty carefully selected word-pairs and a sample of eighty-two students at the university. The range of scoring on each item was from one to seven. Items to be selected had to correlate with another item with an r greater than .60. They also had to show a standard deviation greater than 1. On this basis two parallel forms each with fifteen items emerged. Form A had a mean score of 77.60, and Form B a mean score of 78.27. The higher the score, the more favourable was the attitude toward the concept educational administration.

Form A was used in the present study. Five additional dummy items were included. Eleven items had to be reflected in the scoring. The total score on the fifteen items represented the attitude of the respondent toward educational administration. The scores on the factors were determined after factor analysis of the responses of the beginning student.

The respondents were also asked to provide information relating to sex, age, educational level, type and size of school background, rural or urban origin, the socio-economic status. The latter was arrived at by the use of the Gough Home Index Scale adapted for use in Canada. The questionnaires for the administrators and teachers had the same semantic differential test and contained similar questions of a demographic nature.

The characteristics of the respondents are provided in Tables 1 and 2.

TABLE 1

CLASSIFICATION OF RESPONDENTS

Classification	N
Beginning Students in Education	81
Administrators (graduate students)	59
Teachers (graduate students)	29

Sample

Data were collected from students present at The University of Alberta during the regular session in 1968-69. Eighty-one students in their first year were selected at random from a population of 700 first year students in the Faculty of Education. All 59 students in the graduate program of the Department of Educational Administration were asked to respond to the instruments. All 29 elementary and secondary school teachers who were enrolled in a graduate curriculum development course participated. In this report the groups will be referred to as students, administrators, and teachers, respectively.

TABLE 2

CHARACTERISTICS OF RESPONDENTS (BEGINNING STUDENTS)

Category	Classification	N
Sex	Male	35
	Female	46
Age	17-19	44
	20-25	19
	26 and over	18
Previous Year's Occupation	Studying	51
	Working	30
Type of High School Background	Public School	65
	Other	16
Size of High School Background	Small	51
	Large	30
Rural-Urban Background	Rural	34
	Urban	47
Socio-Economic Background	High	23
	Middle	38
	Low	20

Factor Scores

The fifteen scales used in this study in connection with the beginning student factored into three factors which followed closely the model developed by Osgood (1957). The factor loadings on the scales using the varimax rotation are provided in Table 3.

Factor 1 corresponds to what Osgood calls the evaluation factor, factor 2 the potency factor, and factor 3 the activity factor. These factors permit a study of meaning of the concept to the respondents.

TABLE 3

FACTOR LOADINGS ON THE SEMANTIC DIFFERENTIAL
EDUCATIONAL ADMINISTRATION (FORM A)*

N = 81

	h^2	Evaluation	Potency	Activity
active - sluggish	.573		.558	.477
broad - narrow	.622			.783
contemptible - admirable	.406		-.548	
courteous - unmannerly	.475		.664	
distinguished - ordinary	.742		.795	
reasonable - ridiculous	.719	.808		
eager - apathetic	.649	.584	.554	
flexible - rigid	.670			.776
formidable - weak	.360		.484	
ignorant - educated	.558	-.663		
vigorous - lethargic	.421		.480	
annoying - pleasing	.542	-.607		
pertinent - unrelated	.386	.565		
forceful - wavering	.445		.608	
vague - clear	.597	-.767		
Per Cent of Total Variance	54.4	21.5	20.3	12.5

*The underlined adjective is the favourable direction

Results

To test hypotheses 1.1 to 1.7, the scores obtained on students, both on the total and on the factors, were treated by analysis of variance. The computed F ratios and the probabilities indicating their significance are presented in Tables 4 through 10.

TABLE 4

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF FIRST YEAR UNIVERSITY STUDENTS WHEN CLASSIFIED BY SEX

Concept	Factor	Between Groups df	Between Groups Mean Square	Within Groups df	Within Groups Mean Square	F	Significance
Educational Administration	Favourable	1	398.25	79	165.30	2.41	.125
	Evaluation	1	154.44	79	43.18	3.58	.062
	Potency	1	10.75	79	58.10	0.19	.668
	Activity	1	35.58	79	13.97	2.55	.115

*Significant differences

TABLE 5

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF FIRST YEAR UNIVERSITY STUDENTS WHEN CLASSIFIED BY AGE

Concept	Factor	Between Groups df	Between Groups Mean Square	Within Groups df	Within Groups Mean Square	F	Significance
Educational Administration	Favourable	2	147.53	78	168.74	0.87	.421
	Evaluation	2	57.44	78	44.24	1.30	.279
	Potency	2	13.81	78	58.63	0.24	.791
	Activity	2	17.88	78	14.15	1.26	.288

*Significant differences

TABLE 6

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF FIRST YEAR UNIVERSITY STUDENTS WHEN CLASSIFIED BY PREVIOUS YEAR'S ACTIVITY

		Between Groups		Within Groups			
Concept	Factor	df	Mean Square	df	Mean Square	F	Significance
Educational Administration	Favourable	1	401.81	79	165.26	2.43	.123
	Evaluation	1	163.37	79	44.11	3.70	.058
	Potency	1	6.50	79	58.32	0.11	.734
	Activity	1	80.06	79	13.53	5.92	.017*

*Significant differences

TABLE 7

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF FIRST YEAR UNIVERSITY STUDENTS WHEN CLASSIFIED BY TYPE OF HIGH SCHOOL

		Between Groups		Within Groups			
Concept	Factor	df	Mean Square	df	Mean Square	F	Significance
Educational Administration	Favourable	1	9.31	79	170.22	0.05	.816
	Evaluation	1	9.75	79	45.01	0.22	.643
	Potency	1	121.94	79	56.70	2.15	.146
	Activity	1	3.62	79	14.38	0.25	.617

*Significant differences

TABLE 8

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF FIRST YEAR UNIVERSITY STUDENTS WHEN CLASSIFIED BY SIZE OF HIGH SCHOOL

		Between Groups		Within Groups			
Concept	Factor	df	Mean Square	df	Mean Square	F	Significance
Educational Administration	Favourable	1	238.50	79	167.32	1.43	.236
	Evaluation	1	40.81	79	44.62	0.91	.342
	Potency	1	67.87	79	57.38	1.18	.280
	Activity	1	45.21	79	13.85	3.26	.075

*Significant differences

TABLE 9

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF FIRST YEAR UNIVERSITY STUDENTS WHEN CLASSIFIED BY RURAL URBAN BACKGROUND

		Between Groups		Within Groups			
Concept	Factor	df	Mean Square	df	Mean Square	F	Significance
Educational Administration	Favourable	1	442.31	79	164.74	2.68	.105
	Evaluation	1	33.00	79	44.72	0.74	.393
	Potency	1	245.12	79	55.14	4.45	.038*
	Activity	1	38.28	79	13.94	2.75	.101

*Significant differences

TABLE 10

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF FIRST YEAR UNIVERSITY STUDENTS WHEN CLASSIFIED BY SOCIO-ECONOMIC STATUS

Concept	Factor	Between Groups df	Between Groups Mean Square	Within Groups df	Within Groups Mean Square	F	Significance
Educational Administration	Favourable	2	201.44	78	167.36	1.20	.306
	Evaluation	2	39.47	78	44.70	0.88	.418
	Potency	2	76.12	78	57.03	1.33	.269
	Activity	2	10.69	78	14.34	0.75	.477

*Significant differences

Only two of the F ratios were significant at the .05 level. The significant F ratios on the activity factor as shown in Table 6 indicated that this is significantly related to the "occupation" of the previous year. The students who had been out working scored lower than those who had been studying. The other significant F ratios appeared on the potency factor as shown in Table 9. The factor was significantly related to the urban-rural background of the students. The rural students rated educational administration significantly higher on the potency factor.

However, all seven hypotheses relating to differences in beginning student sub-groups were accepted. No significant differences in attitudes toward educational administration were revealed.

Since the findings of this study thus far showed that there were no real differences in meanings held by students categorized on seven variables, it may be suggested that educational administration has not had a differential impact on students. Further, it can be postulated that if changes are found they are developed later. It can also be advanced that since these students have in general exhibited an uncommitted stance on this concept they may, as a result, be more open to influentials of various types.

Even though the differences were not significant, consistent differences in mean scores between groups appeared.

Girls had a more favourable attitude than boys.
The 20-25 age group had the least favourable attitude.

The students studying in the previous year had a more favourable attitude than those working.

Students from large high schools had a less favourable attitude than those from small schools.

Urban students had a less favourable attitude than rural students.

The middle socio-economic status students had the most favourable attitude.

Hypotheses 2.1 and 2.2 were also tested by treating the raw scores of the three groups by analysis of variance. The computed F ratio and the significance are presented in Table 11.

TABLE 11

ANALYSIS OF VARIANCE OF DIFFERENCES IN ATTITUDE TOWARD EDUCATIONAL ADMINISTRATION OF ADMINISTRATORS, TEACHERS AND BEGINNING STUDENTS

		Between Groups		Within Groups			
Concept	Factor	df	Mean Square	df	Mean Square	F	Significance
Educational Administration	Favourable	2	3219.94	166	153.87	20.93	.000002

Significant differences were observed among the three groups. Table 12 presents the comparison between ordered means.

TABLE 12

NEWMAN-KEULS COMPARISON BETWEEN ORDERED MEANS OF ADMINISTRATORS, TEACHERS, AND STUDENTS ON SEMANTIC DIFFERENTIAL TEST*

	1	3
2	17.21	7.51
3	9.70	

*All differences significant at the .05 level.

Hypothesis 2.1 was supported. The mean score of the students in administration on the semantic differential was significantly more favorable than that of the teachers and that of the students.

Hypothesis 2.2 was denied. The mean score of the teachers was significantly less favourable than that of the students.

The ordering of the groups according to the mean favourable score is given in Table 13.

TABLE 13

MEAN SCORES ON SEMANTIC DIFFERENTIAL OF THREE GROUPS

Group	Mean Favourable Score	S.D.
Administrators (Graduate Students)	81.07	10.89
Students (Beginning)	71.37	12.97
Teachers (Graduate)	63.86	13.63

Since the focus was on the beginning university students, it was felt necessary to compare the three factors of the three groups, to see whether the meaning held by students toward the concept educational administration was closer to that held by the administrators or to that held by teachers.

A factor match was performed on the three factors obtained from the responses of the three groups. The results are given in Tables 14 and 15.

TABLE 14

FACTOR MATCH

BEGINNING STUDENTS WITH ADMINISTRATORS (STUDENTS)

Factors	Factors		
	1	2	3
1	0.7771	0.6237	-0.0842
2	0.4820	0.2301	0.8454
3	0.0674	0.7550	0.6523

TABLE 15

FACTOR MATCH

BEGINNING STUDENTS WITH TEACHERS (STUDENTS)

Factors	Factors		
	1	2	3
1	0.2466	0.9405	0.2337
2	0.6235	0.0914	0.7764
3	0.9731	0.0902	0.2120

The meanings toward educational administration held by beginning students resembled those held by teachers much more closely than those held by administrators.

Suggested Propositions

1. Educational administration has not made a significant differential impact on beginning university students.

2. Favourable attitudes toward educational administration of beginning students fall between those of administrators and teachers.

3. Of the three groups, students, teachers, and administrators, teachers exhibit the least favourable attitude toward educational administration.

4. The meanings held by beginning students of educational administration resemble those held by the teachers more closely than those held by administrators.

Discussion

Should the findings of this study be supported by further research, certain implications might suggest themselves. Whereas administrators have been concerned mostly with the protests of students, they may have lost touch with a more basic dissenting group, the teachers. There is some indication that the teachers' lower favourable rating of educational administration is reflected in much of the public controversy in education.

The finding that the students have a similar perception of the meaning of educational administration as teachers, suggests that they understand more clearly the teachers' point of view than that held by the administrators. Even though these beginning students do not rate edu-

cational administration as low as the teachers do, they tend to understand the teachers' perception. Hence the teachers' communication, both direct and otherwise, may play a significant role in shaping further perceptions.

The communication between the governing bodies of school organizations and all the people within the organization needs careful examination. The findings of this study point to an alienation of the personnel, especially the teachers, which is probably finding its expression in student dissent. Some of that alienation may stem from distorted communication, some from a perception on the part of teachers of their inability to play a significant role in the school organization.

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Problems associated with making the concept of reliability synonymous with correlation are discussed. Three reliability coefficients are derived and the characteristics of each are discussed and illustrated. Situations in which each might be used are suggested.

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Reliability for the Researcher

Some of the most common tools used in educational research are the unstandardized measuring instruments such as observation schedules, check lists, ratings, classification schemes, researcher developed achievement tests, Likert scales, etc. That such instruments are in common use is emphasized by the fact that in the two most recent volumes of the *Alberta Journal of Educational Research,* 19 (about 58%) of the 33 empirical articles published therein (excluding the special issue on Piaget Vol. 13, Number 3) used instruments of this type. In many cases the significance of the research depended almost entirely upon the strength of the measuring instrument. Yet in almost all cases the authors either neglected to estimate the reliability or calculated it inappropriately. Such a situation is as much a condemnation of graduate instruction in measurement and research design as it is of the researchers themselves.

Although the techniques of reliabiltiy estimation to be discussed here have been known for at least three decades (Fisher, 1946, Snedecor, 1946, Horst, 1949, and especially Ebel, 1951), little use of them has been noted in the literature. In particular the reaction of educational researchers to their application in situations calling for consistency estimates between two or more measuring occasions that are assumed to be interchangeable has been disappointing. These situations would include test-retest reliability, parallel forms reliability, and inter-judge reliability.

In part the reluctance to use the appropriate technique is caused by the faulty ideas of reliability promulgated by elementary textbooks in

measurement and evaluation. The fault lies in the attempt by some textbook writers to make reliability synonymous with product moment correlation. (See for example Thorndike and Hagen, 1961, p. 175; Ahmann and Glock, 1967, p. 314; Stanley, 1964, p. 182.) The *fundamental* concept of reliability regardless of the discipline in which it is used is *consistency* not correlation. Textbook writers would do much in the way of alleviating the confusion if they would centre their discussion of reliability around the estimate of between-occasion consistency and include correlation between occasions as just one way of estimating one kind of consistency.

Let us look at an example of the difficulty that a preoccupation with correlation can get us into. In Table 1, some fictitious data are shown. Suppose these data are the judgments made by two judges of the teaching effectiveness of 10 student teachers. A ten point scale from 0 (completely ineffective) to 9 (extremely effective) is used. A plot of one set of judgments against the other would reveal that all ten points fall on a straight line. In other words, the inter-judge correlation is +1.00. However, let us ask the question basic to reliability, "Are the judgments consistent?" The answer is "yes" in the sense that one vector of judgments is a linear function of the other, that is, students rated higher than their colleagues by one judge tend to be rated higher by the other judge. The answer is a resounding "no" if actual scores are inspected since the judges agree only on the score assigned to one student, number 5.

As the above example illustrates and as other writers have noted (Cronbach *et. al.*, 1963) the question of reliability is not an absolute one. It is relative to the purpose to which the measurements are to be put. So, for example, we would demand different properties of an instrument which uses an ordinal scale for rating teacher effectiveness than we would of an ability test used for advanced placement in college.

A recent case in point is the Orr-Graham Listening Comprehension Test to be used for identifying college potential among disadvantaged junior high school students (Orr and Graham, 1968). The two alternate short forms were found to correlate .74, and yet their means were 27.41 and 29.39. Since correlations are unaffected by differences in test means we have a situation in which this consistency estimate of the two short forms is not an accurate picture of the consistency, in terms of the use to which the score is to be put.

In an effort to clarify the haziness surrounding the estimate of consistency it is useful to look at models of test scores which take into account a variety of sources of instability in a person's score. Each model assumes interval data. Following a look at the models we shall consider three methods of calculating coefficients of reliability noting

TABLE 1
EXAMPLE OF SOME RELIABILITY DATA

	JUDGE	
STUDENT TEACHER	A	B
1	6	8
2	3	7
3	6	8
4	0	6
5	9	9
6	6	8
7	3	7
8	6	8
9	3	7
10	0	6

their relationships to each other, noting their distinctive properties, and indicating situations in which each might properly be used.

Let us assume that our subjects are representative of some definite class of subjects about whom statements concerning the reliability of the measuring procedure are to be made. The subjects at hand are assumed to constitute a random sample from the population. Secondly, let us define a population of measurements from which our particular measurements have been sampled. For example, if we have test-retest data, we assume that the measurements are a sample of two from a population defined as the same test given on many occasions. With this frame of reference we can say that two occasions are a sample from a large number of potential occasions. If we have three judges, we shall say that the judges represent a population of judges. If we have parallel forms of an instrument, then the two forms are considered to be a sample from a population of many forms of the same test.

We can express the model in the following form:

$$\chi_{pi} = M + (M_p - M) + (M_i - M) + f_{pi} \qquad (1)$$

where χ_{pi} is the observed score, rating etc. of person p on occasion i or of person p rated by judge i, etc.;

M_P is the average score obtained by person p over all the occasions in the population of occasions;

M_i is the average score for occasion i of all people in the population of interest;

M is the average score over all occasions of interest and over all people in the population;

f_{pi} is the residual component of the score χ_{pi} and corresponds to the unique interaction between a person and an occasion.

In discussing reliability it has been useful to think of a person's score as being composed of two parts, a constant component or "true score" and a component that varies from occasion to occasion which has been labelled the "error" component. These components are defined in such a way that the error component is independent of the true component. In our model a person's true score is defined as the long run average of of his observed score over all possible occasions. The error score is the difference between a person's observed score on a particular occasion and his true score. Reliability is defined in this model as the ratio of true score variance to observed variance. The discussion of this rationale and mathematical proofs are available elsewhere (Gulliksen, 1950; Lord and Novick, 1968; Cronbach *et. al.*, 1963) and need not be repeated here.

So we represent reliability algebraically as:

$$\rho = \frac{\sigma^2_{M_p}}{\sigma^2_X} \qquad \text{or} \qquad \rho = 1 - \frac{\sigma^2_e}{\sigma^2_X}$$

where σ_e^2 is variance of errors of measurement and is determined by how one chooses to define "inconsistency." A consequence of the above relations is that

$$\sigma^2_X = \sigma^2_{M_p} + \sigma^2_e$$

Using this basic model it is possible to distinguish among three reliability coefficients for interval data.

A. If from (1), $(M_i - M) + f_{pi}$ is taken as the error component and defined as e_{pi} the model becomes $X_{pi} = M + (M_p - M) + e_{pi}$. In practice this is equivalent to acknowledging that the variation among occasion means is important and should be considered as a source of inconsistency. In order to get estimates of σ^2_{Mp} and σ_e^2 two or more occasions are required. Using analysis of variance techniques one can resolve the sums of squares into various components whose expected values are given in Table 2.

TABLE 2

Source	Degrees of Freedom	Expected Value of Mean Square
Between People	n-1	$k\,\sigma_{mp}^2 + \sigma_e^2$
Within People	n (k-1)	σ_e^2

where n is number of people

k is number of replications.

Thus an estimate of σ_e^2 is the Mean Square Within Persons, and an estimate of σ_{Mp}^2 is

$$\frac{MS_P - MS_W}{k}$$

where MS_W is the Mean Square Within Persons and MS_P is the Mean Square Between Persons and k is the number of occasions.

Since reliability is equal to the ratio of true score variance to observed score variance, and since the observed score variance is the sum of the true score variance and the error variance, then

$$\rho = \frac{\sigma_{M_p}^2}{\sigma_{M_p}^2 + \sigma_e^2} = \frac{\dfrac{MS_P - MS_W}{K}}{MS_P + \dfrac{MS_P - MS_W}{k}} = \frac{MS_P - MS_W}{MS_P + (k-1)\,MS_W} \qquad (2)$$

Computational formulae for the various terms are given in Winer (1962, p. 126).

B. In this situation, it is believed that the occasions do not have different means or that the use that is to be made of the scale is such that the differences between judge, test or occasion means will be eliminated by rescaling the scores prior to their use. That is, $(M_i - M)$ will be set to zero for all i. Such a case may arise when judges are asked to rate a group of people on a hundred point scale using fifty points as an average score, or ratings are made on a hundred point scale and then, a constant number of points is added or subtracted from each judge's rating to make its mean equal to 75. In this case the model becomes

$$X_{pi} = M + (M_p - M) + f_{pi}$$

Again using the repeated measures design for analysis of variance, we resolve the total variation into various sums of squares whose expected values are given in Table 3.

TABLE 3

Source	Degrees of Freedom	Expected Value of Mean Square
Between People	n-1	$k\,\sigma^2_{m_p} + \sigma^2_f$
Between Occasions	k-1	$n\,\sigma^2_{m_i} + \sigma^2_f$
Residual	(n-1) (k-1)	σ^2_f

As before, the reliability is given by the ratio of an estimate of the true score variance to the sum of the estimates of the true score variance and the error variance. However in Case A, an estimate of error variance was provided by the Mean Square Within Persons, whose sum of squares is just the sum of the Residual Sum of Squares and the Between Occasions Sum of Squares. Since in this case we are either assuming or making, the occasion means the same, the Between Occasions Sum of Squares will be zero. Thus the error variance is given by the Residual Mean Square.

A little algebraic manipulation of the expected values in Table 3 reveals that the true score variance can be estimated by

$$\frac{1}{k}\,(MS_P - MS_R)$$

where MS_P is the Between Persons Mean Square and MS_R is the Residual Mean Square. Computational formulae for these terms are given in Winer (1962, p. 131). The reliability for this case can be estimated by

$$\rho = \frac{\sigma^2_{M_P}}{\sigma^2_{M_P} + \sigma^2_f} = \frac{\frac{1}{k}\,(MS_P - MS_R)}{\frac{1}{k}\,(MS_P - MS_R) + MS_R} = \frac{MS_P - MS_R}{MS_P + (k-1)\,MS_R} \qquad (3)$$

C. Finally if an investigator is going to rescale the judges on occasions to the same mean and standard deviation (or if he believes they are equal) he is assuming they are parallel tests (Gulliksen, 1950, p. 26; Lord and Novick, 1968, p. 58). The appropriate estimate of reliability

for this case is the correlation between pairs of judgments since it reflects the amount of agreement or disagreement between judges when differences due to means of variances are unimportant. From (2) the model for this case becomes

$X_{pi} = M_p + f_{pi}$ since $M_i - M$ is zero for all i.

Algebraically it can be shown the estimate of ρ in Class B is equal to the correlation coefficient if parallelism is assumed.

In the two sample cases

$$MS_R = \hat{S}_1^2 + \hat{S}_2^2 - r_{12}\,\hat{S}_1\,\hat{S}_2$$

where $\hat{S}_1^2$ is the unbiased estimate of the population variance from sample 1, $\hat{S}_2^2$ is the unbiased estimate of the population variance from sample 2, and r_{12} is the correlation between the two sets of scores.

$$MS_P = \frac{\hat{S}_1^2 + \hat{S}_2^2 + 2r_{12}\,\hat{S}_1\,\hat{S}_2}{2}$$

Substituting in (3)

$$\rho = \frac{\frac{\hat{S}_1^2}{2} + \frac{\hat{S}_2^2}{2} + \frac{2r_{12}\,\hat{S}_1\,\hat{S}_2}{2} - \frac{\hat{S}_1^2}{2} + \frac{\hat{S}_2^2}{2} + r_{12}\,\hat{S}_1\,\hat{S}_2}{\frac{\hat{S}_1^2}{2} + \frac{\hat{S}_2^2}{2} + \frac{2r_{12}\,\hat{S}_1\,\hat{S}_2}{2} + \frac{\hat{S}_1^2}{2} + \frac{\hat{S}_2^2}{2} + r_{12}\,\hat{S}_1\,\hat{S}_2}$$

$$\rho = \frac{2r_{12}\,\hat{S}_1\,\hat{S}_2}{\hat{S}_1^2 + \hat{S}_2^2}$$

For strictly parallel tests the observed test variance are equal. Thus

$$\rho = r_{12}\frac{\hat{S}_x 2}{\hat{S}_x 2} = r_{12} \qquad \text{(correlation coefficient)} \qquad (4)$$

We can now see the relationship of the various estimates of reliability as given in cases A, B, and C. Reliability as estimated by (2) will equal the estimate of (3) provided the means are the same, and both will equal the estimate of (4) provided means and variances are the same.

Discussion

Returning to the example shown in Table 1, we can see the effect that differences in means and variances have on the reliability coefficient when it is estimated in the three ways described above. The familiar analysis of variance summary table is shown in Table 4.

TABLE 4

Source	Sum of Squares	Degrees of Freedom	Mean Square
Between People	67.2	9	7.47
Within People	68.0	10	6.80
Between Occasions	51.2	1	51.20
Residual	16.8	9	1.87

For case A, since k = 2, the reliability can be estimated by

$$\frac{MS_P - MS_W}{MS_P + MS_W}$$

the value for which is .047. For case B the reliability is estimated by

$$\frac{MS_P - MS_R}{MS_P + MS_R}$$

which is equal to .60. And for case C the reliability is estimated by the correlation coefficient which, as was noted earlier, is perfect (+1.00). This example based on fictitious data is an extreme illustration of the importance of knowing and indicating the relevant sources of inconsistency. If the absolute values of the judgments are to be used, it is clear that the measuring instrument has little merit whatsoever. On the other hand, if the investigator is prepared to rescale all of the occasions to the same mean and variance, the resulting measurement will be very consistent.

To summarize, if neither differences in means nor differences in variances is relevant then a correlation coefficient should be used. If differences in variances are relevant but differences in means are not, then the method outlined in Case B should be used. If differences in both means and variances are relevant then the methodology of Case A should be used.

For example, suppose that an investigator wishes to measure aggressive behaviour in children by asking judges to rate video taped samples on a ten point scale. If he only wants to order the children in terms of their aggressive behaviour, then the reliability of judgment could be estimated by the interjudge correlation. If he wants to use the assessment as the dependent variable in an experience, then he should likely rescale all of the ratings so that the judgments of every judge will have the same mean and thereby avoid having a possible treatment effect confounded with a judge effect. From the raw data he can calculate the reliability by using Case B.

In another instance an investigator may wish to use principals' ratings to aid in the selection of students for early entrance to university. In this case the investigators' problem is that each principal imposes his own origin and unit of measurement on his ratings. The appropriate estimate of reliability here is the method described in Case A.

In the discussion up to now stress has been placed on numerical methods that are appropriate for interval data. In many cases the data do not satisfy the assumptions. For example, several judges may be asked to classify a set of behavioural events into one of many classes. Here it is appropriate to use percent agreement as the estimate of consistency. As a matter of fact it is almost always useful to look at the possibility of using such a statistic to estimate consistency. Using interval data, one might want to define "agreement" as being absolute agreement plus or minus some constant, the constant being determined by the amount of error that can be tolerated by the characteristics of the situation. In the example cited in Table 1 our percentage of agreement is 1/10 or 10%. If disagreement of up to and including two points can be tolerated, then the percentage of agreement becomes 50%. The use of percentage agreement has the desirable property of being immediately understood by the person who is statistically naive.

Regardless of the kind of data, the question of reliability of a measurement is fundamentally a question of the consistency of the measurement. There are many ways to calculate indices of consistency, the one that is used should be determined by the use to which the measurement is to be put, and not by blind obedience to common practice.

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BOOK REVIEW

THE SOCIAL STUDIES: STRUCTURE, MODELS, AND STRATEGIES
Edited by Martin Feldman & Eli Seifman. Englewood Cliffs, N.J.: Prentice Hall, 1969.

Here we have a book of readings about the social studies and components thereof. It is divided into three sections as indicated by the sub-title. Part II, dealing with models, is of a general nature, while both Parts I and III have each six subdivisions related to the six major social sciences: anthropology, economics, geography, history, political science, and sociology.

Feldman and Seifman provide a preface, a short introduction to each part, and a single sample each of their own works. Among the contributors are a few well-known scholars in the social science disciplines, many of the popular modern social studies educators, and a scattering of those scholars who, through interest or accident, are dabbling in the educational aspects of their fields. The editors, in assembling a rather impressive body of readings, do not present any particular thesis or point of view with respect to the new concept of social studies in the schools.

One might well question the choice by the editors of the keynote paper for Part I and, thereby, the book. They have chosen "The Concept of the Structure of a Discipline," by Joseph J. Schwab, first published in 1962. Why introduce a book of social studies readings with an article by a scientist? Schwab's article is well known, and is accepted as a clear, concise, and cogent statement of the basic idea of structure. The fact that his examples are drawn from science rather than social science does not detract from it. His fundamental distinction between conceptual structure and syntactical structure is basically a division between the substantive content and the process of inquiry in any discipline. Until such time as a better article appears, we may well expect Schwab's to be used in any subject context.

The introductory paper for Part II is "The Study of Education as the Study of Models," by Marc Belth, which first appeared in this periodical, *A.J.E.R.*, in September, 1966. This writer suspects that this is an erudite article, although somewhat obscure. For those social science teachers who are acquainted with Belth's work, it should be remarked that none of his chief critics are represented in this book. Belth does provide a useful definition of *model*, as differentiated from such other terms as *method, structure, gestalt,* or *category*: "Models are addressed to principles, not to raw experience, . . . the logical relationships which are projected as the characteristics of the different kinds of principles of distinction." Some good models are presented in this

part according to the definition, although there is heavy emphasis on history as the vehicle rather than on a concept of interdisciplinary social sciences. Attempts at a synthetic model are made by such contributors as Paul Hanna, Bruner, and Fred Newmann.

It is an interesting exercise to read side by side the readings from Parts I and III in any particular social science. In general, the selections in Part I dealing with the structure of the discipline are concerned primarily with what Schwab calls the "conceptual structure" and only incidentally, if at all, with the "syntactical structure." However, there are some good examples of syntactical development of an argument or thesis, and it may be that the authors think they are providing at least an example of the syntactical structure of their disciplines in this way. We might criticize the selections made by the editors in this part on the ground of narrowness. Similar criticism could not be levelled at them for Part III. Here there is a wide variety of examples of strategies to be used in schools. Samples range from beginning school age to senior high school age, from highly practical applications to fairly esoteric theoretical discussions. The weakness that appears in Part III is the lack of synthesis for the social studies as one field of instruction, although there is a wealth of suggestions in the separate components. While Part I provides useful implications for teachers in training, Part III is rather more of a handbook for practicing teachers in the classroom.

A good book of readings has the advantage of bringing together a number of views and making them readily accessible. The editors have made such a good collection. A few of the selections are "of age," but in general they are useful for comparison. The book should provide a useful addition to the professional library of the social studies teacher.

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